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(54) Title: METHOD OF DEPOSITING TRANSITION METAL NITRIDE THIN FILMS

(57) Abstract: This invention concerns a method for depositing transition metal nitride thin films by an Atomic Layer Deposition (ALD) type process. According to the method vapor-phase pulses of a metal source material, a reducing agent capable of reducing metal source material, and a nitrogen source material capable of reacting with the reduced metal source material are alternately and sequentially fed into a reaction space and contacted with the substrate. According to the invention as the reducing agent is used a boron compound which is capable of forming gaseous reaction byproducts when reacting with the metal source material.



WO 01/27347 A1